

## **ABSTRACT OF THE DISCLOSURE**

A device for analysing manual thumps, applied to simulate pre-cordial thumps for the treatment of a dysrhythmia of the heart of a patient, has an array of force-detecting, proportional sensors having a frequency response of at least 1 kHz, usually 10 kHz or more. A preferred form of sensor has a key for receiving an applied force mounted for movement relative to a support with a spring having a preselected spring constant coupled therebetween. An optical sensor and grating detect the displacement of the key relative to the support. This sensor provides advantages of being fast, accurate and truly proportional. The device has an electronic circuit for receiving the output signal of each sensor and outputting the output signals to an external computer running a program to analyse and display the output signals. The device may be used to study the biophysical parameters of a pre-cordial thump or as a teaching tool to train users in the correct application of a pre-cordial thump. The device may also be used to analyse similar impacts in other technical fields.